Remarks

Favorable reconsideration of this application is requested in view of the above amendments and in light of the following remarks and discussion.

Claims 1-20 are pending the application. Claims 2, 4, and 6 are amended, and new dependent Claims 8-20 are added, by way of the present response.

In the outstanding Office Action Claims 2, 4, and 6 are rejected under 35 U.S.C. § 112, second paragraph, and Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 2000-197843 to Numazawa et al. (Numazawa) in view of U.S. Patent No. 5,522,785 to Kedl et al. (Kedl).

As stated above Claims 2, 4, and 6 are rejected under 35 U.S.C. § 112, second paragraph. In response, the claims have been amended to recite "two side edges" in place of the previous recitations of "the two end portions." For these reasons, it is requested that the rejection of Claims 2, 4, and 6 under 35 U.S.C. § 112, second paragraph, be withdrawn.

As stated above Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Numazawa in view of Kedl. It is requested that the rejection of the claims be withdrawn for the following reasons.

Independent Claim 1 is directed to a method for removing wrinkles formed on a web which is continuously transported through a plurality of guide members. The method includes placing a crown roller in a transport path of the web and downstream of a first zone in which wrinkles are desirably removed, and deforming the web in a second zone located downstream of the crown roller so as to at least decrease the width of the web, whereby the wrinkles in the first zone are removed.

In the claimed method the web is deformed at two locations, both downstream of the zone in which the wrinkles are desirably removed (i.e., the web is deformed by the crown roller placed downstream of the first zone in which the wrinkles are desirably removed, and is

also deformed in the second zone that is also downstream of the first zone). By this arrangement, the crown roller generates a difference in transport speed between the center and the edges of the web, such that the center is moving at a speed greater than the edges. Because of the difference in speed, wrinkles are formed from the center to the edges of the web.

The web is also deformed downstream of the crown roller, by decreasing the width of the web. This deformation counteracts the difference in speed caused by the crown roller. Specifically, the speed of the edges of the web is increased as compared to the center. These two deformations, which counteract one another, result in the removal from the web of the wrinkles formed by the crown roller, and generate a uniform tension in a width direction of the web throughout the entire zone in which the wrinkles are desirably removed. A coating of uniform thickness can then be applied to the web.[1]

It is asserted that a combination of Numazawa and Kedl do not disclose or render obvious the claimed features of placing a crown roller in a transport path of the web and downstream of a first zone in which wrinkles are desirably removed, and deforming the web in a second zone located downstream of the crown roller so as to at least decrease the width of the web, whereby the wrinkles in the first zone are removed, as recited in independent Claim 1. Rather, it is asserted that while Numazawa depicts the use of the edge lifter 5c downstream of the die 3, Numazawa does not disclose or render obvious deforming a web at two locations downstream of a zone in which wrinkles are desirably removed. Further, although Kedl depicts rollers for guiding webs and removing wrinkles, Kedl also does not disclose or render obvious deforming a web at two locations.

Because neither Numazawa nor Kedl discloses or renders obvious deforming a web at two locations downstream of a zone in which wrinkles are desirably removed, there is no

[1] From page 10, line 12 to page 11, line 10, of Applicants' originally filed specification.

suggestion to combine Numazawa and Kedl to provide the two deformations, which counteract one another, and result in the removal from the web of the wrinkles and generate a uniform tension in a width direction of the web throughout the entire zone in which the wrinkles are desirably removed. Rather, as discussed in the originally filed specification, the use of the edge lifters of Numazawa results in the formation of wrinkles at the portions adjacent to the edge lifters,[2] while the use of the crown roller of Kedl results in the formation of wrinkles from the center to the edges of the web.

It is further submitted that the claimed invention can be used to remove wrinkles formed during transport and coating of a web, without using a particular backup component, even when a relatively thin web (e.g., a web having a thickness of 10 μm or less) is transported and coated.

In contrast, Numazawa does not depict or disclose removing wrinkles from a web. Rather, Numazawa is directed to solving the problem of a decrease in a paint film thickness near an edge of a traveling film caused by coating the thin film with a specified die coating method. Further, Numazawa discloses that an increase in local tension of a film edge part is undesirable.[3] However, the web-deforming device in accordance with the claimed invention generates a difference in speed, as a result of a difference in tension, between a central web portion and end portions of the webbing.

Additionally, Numazawa provides an edge lifter between a guide roll and a die.[4] Therefore, even though Numazawa discloses that the edge lifter 5 can be located up to 200 mm downstream of the coating die[5] and the rollers 4 can be located 100 mm downstream of the coating die,[6] Numazawa still does not depict or describe that the edge lifter 5 can be

[2] Page 5, lines 3-16, of Applicants' originally filed specification.
[3] Paragraph [0021].
[4] Claim 1.
[5] Abstract.
[6] Paragraph [0026].

disposed downstream of the rollers 4 and that desirable coating results can be expected from such an arrangement.

For these reasons, it is requested that the rejection of independent Claim 1 under 35 U.S.C. § 103(a) be withdrawn, and the allowance of independent Claim 1 is requested.

It is asserted that independent Claims 3 and 5 are allowable for reasons similar to those discussed above with respect to independent Claim 1. For these reasons, it is requested that the rejection of independent Claims 3 and 5 under 35 U.S.C. § 103(a) be withdrawn, and the allowance of independent Claims 3 and 5 is requested.

Claims 2, 4, and 6-20 are also allowable for the same reasons as independent Claims 1, 3, and 5 from which they depend, as well as for their own features. Therefore, it is requested that the rejection of dependent Claims 2, 4, 6, and 7 under 35 U.S.C. § 103(a) be withdrawn, and the allowance of dependent Claims 2, 4, and 6-20 is requested.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-20 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

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Respectfully submitted,

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